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# SCIENCE

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FRIDAY, AUGUST 18, 1899.

DANIEL G. BRINTON.

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IN the death of Dr. Brinton American science has suffered a grievous loss. Notably brilliant and versatile, endowed with exceptional acumen, and an indefatigable worker, he investigated much of the broad field of anthropology with signal success; a fluent and forceful speaker and a clear and cogent writer, he was remarkably successful in putting the results of his work before general auditors and readers as well as students; exceptionally public-spirited and appreciative of the normal human demand for better knowledge, he strove constantly to extend and improve instrumentalities for the diffusion of science. Thus through rich natural endowment, coupled with wise and persistent effort, he materially advanced the Science of Man and placed himself in the front rank of the anthropologists of the world. His activity continued undiminished (despite the weight of well-guarded suffering consequent on military service) until checked by the illness which terminated with his life.

Born in Chester county, Pennsylvania, May 13, 1837, Daniel Garrison Brinton graduated from Yale (A.B.) in 1858, and from Jefferson Medical College (M.D.) in 1861, and assimilated his thorough training during a year in Europe, with special studies in Paris and Heidelberg. Stimulated by the martial spirit of the time, he then returned and entered the Federal army as

MSS. intended for publication and books, etc., intended for review should be sent to the responsible editor, Professor J. McKeen Cattell, Garrison-on-Hudson, N. Y.

tational,  $E$  is constant along the same stream line (fillet) defined by the equations

$$\frac{dx}{u} = \frac{dy}{v} = \frac{dz}{w},$$

where  $u$ ,  $v$ ,  $w$ , are the component velocities of the particle; 3d, when the motion is steady but rotational,  $E$  is also constant along the same vortex line, defined by the equations

$$\frac{dx}{p} = \frac{dy}{q} = \frac{dz}{r},$$

where  $p$ ,  $q$ ,  $r$  are the component spins.

Then follow a proof of the théorem of Helmholtz, above cited, and of the theorem that in the case of a liquid filling a recipient the velocity components  $u$ ,  $v$ ,  $w$  are determinate if the spins  $p$ ,  $q$ ,  $r$  are known at any instant. Several very instructive special cases of vortex motion are also considered; and the chapter closes with an exposition of the problem of the motion of a solid in a liquid, application being made especially to the case of pulsating spheres studied by Bjerknes.

R. S. W.

*The Elements of Vital Statistics.* By ARTHUR NEWSHOLME, M. D. Third Edition. London, T. Swan Sonnenschein & Co., and New York, The Macmillan Company. 1899. Pp. xii + 353.

That a third edition of this book has been demanded within ten years of its first appearance is gratifying evidence of a growing public interest in Vital Statistics and an appreciation of sound and careful work. Vital Statistics, interpreting that phrase in a somewhat larger sense than is done by this writer, is probably the best avenue along which to approach the general field of statistics. It is the oldest, most developed and most systematized branch of the subject, and, if properly handled, can be made of great interest even to beginners. For these reasons I have long felt that the book of Dr. Newsholme was, perhaps, as good an introduction to statistics as anything in the English language. There is no American book to be compared with it, for the articles by Dr. J. S. Billings and Dr. Roger S. Tracy are buried in pages of other matter, one in a medical journal and the other in an encyclopædia, and neither vies in simplicity or fullness of treatment with the present work. This third edition is almost

a new book, embracing fewer tables, more graphic illustrations, more references to results obtained in foreign countries and many new subjects. From the American standpoint it may be criticised as confined somewhat too closely to topics which especially interest English sanitary and medical statisticians. But as England is *facile princeps* in this field and the United States as a whole is inferior, not merely to those countries of Europe with which we naturally compare ourselves, but even to Russia, Greece, Spain and the colonies of Australia, the objection is not a serious one. During years of critical use of Dr. Newsholme's book I have never found in it a serious error of statement and the argumentative parts are sound, temperate and convincing. It is a typically English book, caring little for theory or refinements of analysis unless they have a clear bearing on the results, but strong in all such practical discussions as statistical evidence for the utility of vaccination, causes of infant mortality, or the fallacies to which statistical arguments are exposed. WALTER F. WILLCOX.

CENSUS OFFICE.

#### BOOKS RECEIVED.

- Anatomie des Frosches.* A. ECKERT and R. WIEDERSHEIM. Revision by DR. ERNEST GAUPP. 2d Edition. Braunschweig, Friedrich Vieweg und Sohn. 1899. 2d Part. Pp. 237-548 + xii.
- Praxis und Theorie der Zellen- und Befruchtungslehre.* VALENTIN HÄCKER. Jena, Gustav Fischer. 1899. Pp. viii + 260. Mark 7.
- Fixirung, Färbung und Bau des Protoplasmas.* ALFRED FISCHER. Jena, Gustav Fischer. 1899. Pp. x + 362. Mark 11.
- Folk-lore in Borneo.* WILLIAM HENRY FURNESS. Wallingford, Pa., Privately Printed. 1899. Pp. 30.
- Sewage Analysis.* J. ALFRED WANKLYN and WILLIAM JOHN COOPER. London, Kegan, Paul, Trench, Treubner & Co., Ltd.; Philadelphia, J. B. Lippincott Company. 1899. Pp. xvi + 220. \$2.00.
- New Plane and Solid Geometry.* WOOSTER WOODRUFF BEMAN and DAVID EUGENE SMITH. Boston, Ginn & Company. 1899. Pp. ix + 382.

#### SOCIETIES AND ACADEMIES.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE—PRELIMINARY PROGRAMS.

SECTION A, MATHEMATICS AND ASTRONOMY.

'REPORT on Progress in Non-Euclidean Geometry,' George Bruce Halsted, University of Texas, Austin, Texas.